DOCUMENT RESUME

ED 030 864 AL 001 967

By-Mickelson, Norma I.; Galloway, Charles G.

Cumulative Language Deficit Among Indian Children.

Pub Date Jan 69

Note-7p.; Paper presented at the Seventh Canadian Conference on Educational Research; Victoria, British Columbia, Canada, January 1969.

Available from-Canadian Council for Research in Education, 265 Elgin St., Ottawa, 4, Canada (Single copy $0.15, two copies $0.25, ten or more $0.10 each. Payable in advance).

EDRS Price MF-$0.25 HC-$0.45

Descriptors-*American Indians, Child Development, *Disadvantaged Youth, English (Second Language), Language Development, *Language Handicaps, *Language Instruction, Preschool Curriculum, Preschool Education, Preschool Programs

Identifiers-*Canada

The present language study, carried out by the University of Victoria and the Department of Indian Affairs during the summer of 1968, was based on the Deutsch "cumulative deficit hypothesis." (This theory has as one of its bases the idea that the lack of appropriate language stimulation in early home and school life makes success in school activities progressively more difficult with age.) A four-week pre-kindergarten, pre-school, and orientation enrichment program for Indian children living on four reserves in the southern region of Vancouver Island was taught by two faculty members from the University of Victoria, an American with experience in Head-Start programs, and six teen-aged Indian girls as teaching aides. The children enrolled demonstrated characteristics "common to the disadvantaged child and simultaneously to Canadian Indian children currently living on reserves." Attention was focussed on language development within the framework of a "total verbal-immersion" approach. A model of pre-school education based on Ellis' 1967 model was used. The data presented in this study "suggest that language deficiencies tend to remain in the verbal repertoire of the child." The data "also support the hypothesis that this phenomena can be corrected." (AMM)

ED030864

CUMULATIVE LANGUAGE DEFICIT AMONG INDIAN CHILDREN

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

by
Norma I. Mickelson and Charles G. Galloway
University of Victoria

a paper presented to

THE SEVENTH CANADIAN CONFERENCE ON EDUCATIONAL RESEARCH
Victoria, British Columbia, Canada
January 1969

Canadian Council for Research in Education
265 Elgin St., Ottawa, 4, Canada

10¢ each for 10 or more
15¢ for single copy
25¢ for 2 (any titles)
Payable in advance to defray
handling charges

AL 001 967

* CUMULATIVE LANGUAGE DEFICIT AMONG INDIAN CHILDREN

Martin Deutsch (1965) and his associates have been conducting a series of developmental studies with reference to the relationship between social class and race, and language and thought. Their data are of practical interest to teachers because the findings focus upon factors associated with aspects of language development so intimately related to reading. Furthermore, their data are of theoretical interest in that the findings are related to a broadly conceived "cumulative deficit hypothesis" which has as one of its bases the idea that the lack of appropriate language stimulation in early home and school life makes success in school activities progressively more difficult with age.

With respect to school learning, Deutsch (1965)says: "If language cannot be used as an elaborating form of communication, school loses much of its socializing and teaching capabilities, regardless of the curriculum contents." In addition, particularly in relation to the concept of reading readiness Deutsch argues that for children, disadvantaged with respect to lower social status and possibly race, the all too minor adjustments made by schools to readiness for reading are completely unrealistic. He argues that such children need saturation in language experience both before school and especially during early school years. His plea would appear to be for a more aggressive and dynamic implementation of the concept of "language readiness" for such children. He notes:"While we can accept that some of this cumulative deficiency is associated with inadequate early preparation because of corresponding environmental deficiencies, the adequacy of the school environment also must be questionned". (p.80).

THE STUDY

Programme

With this frame of reference, the University of Victoria in co-operation with the Department of Indian Affairs during the summer of 1968 sponsored a four-week pre-kindergarten, pre-school, and orientation enrichment programme for Indian children living on four reserves in the southern region of Vancouver Island. Children in the three classes were ages 3-4 years, 5-6 years, and 7-13 years respectively.

The teaching staff consisted of two faculty members from the University of Victoria, one visiting lecturer who had previous experience with American head-start programmes, and six teen-aged Indian girls who acted as teaching aides.

In assessing the experiential background of the children enrolled in the programme, the faculty felt the following were characteristic of the cultural milieu in which many of the children lived:

1. Indian communities ... do not stress oral language.
2. Indian communities function without benefit of full literacy..... yet most Indians are potentially avid readers provided the printed matter is of direct interest to them (Provincial Report, 1968).

* CCRE is pleased to bring you this paper. The ideas expressed are those of the author.

In addition many of the children appeared to manifest characteristics referred to in the large body of literature now available on the educationally disadvantaged child:

1. Lack of self-confidence.
2. Paucity of educational stimulus in the home.
3. Inadequate physical care and undernourishment.
4. Impoverishment of language skills.

Generally then, it seemed realistic to suggest that many of the children enrolled in the programme demonstrated characteristics common to the disadvantaged child and simultaneously to Canadian Indian children currently living on reserves.

General goals were structured for the over-all programme and subsequently specific behavioral objectives formulated for each of the three groups of children. Bloom's (1956) classification scheme was used for the cognitive domain, Krathwohl's (1964) for the affective area, and Simpson's (1966-67) for the psycho-motor domain.

For the most part, in the cognitive area, attention was focussed on language development within the framework of a total verbal-immersion approach. An attempt was made to increase the quality and quantity of the children's verbalization patterns, to extend the children's functional knowledge of the structure of the English language, to increase the pupils' abilities to comprehend and apply information, and to enable the children to apply, analyze, synthesize, and evaluate on the basis of knowledge gained.

One of the major areas of concern for the summer programme was the methodology employed to increase the quantity and quality of the childrens' verbalizations. A careful appraisal was made of the techniques outlined by Bereiter and Engelmann (1966). While many of the assumptions underlying their programme were accepted as relevant to the type of student population in attendance at the summer programme, their methodology involving "an intensive fast-paced highly structured programme of instruction" (p.52) was modified. A more relaxed, but nevertheless methodically structured programme, based on Ellis' (1967) model of pre-school education was used.

The envirionment in the classes was pleasant and oriented towards individualizing instruction. Teaching materials, strategies, and programmes were meticulously thought out and programmed. To achieve the goals outlined, teachers and aides encouraged the children to verbalize at every opportunity and enthusiastically reinforced them.socially for their efforts. Children were required to speak in sentences and to communicate requests verbally. When children had difficulty doing so, an example was given for purposes of imitation.

Instructional materials were used to facilitate specific verbal patterns. For example, identity statements were required in answer to the question picture situation: "What is this?" Sorting, classifying, describing, and explaining activities were based on concrete materials and verbal requests. Children were required to listen to and follow specific verbal directions. Visual discrimination tasks requiring knowledge of similarities and differences were utilized in encouraging children to verbalize.

Results and Discussion

Quality of verbalization was assessed through the use of a pre-post test of language patterns administered by a teen-aide to eight children in the pre-school group (ages 5 - 7). Children were given alternate forms of a language patterns test, the Imitation-Comprehension-Production Test (Brown, et al, experimental edition). They were shown 44 pairs of pictures and asked to point to the one indicated by a verbal description given by the aide such as: "The girl is reading"; "The Girl is not reading"; "The bird in the cage"; "The bird cage". The aide sat behind the subject in each case to minimize the possibility of non-verbal cueing. Instructions were read to insure uniformity. The same aide conducted both the pre- and the post-test. Language patterns examined by the test were the use of:

- negatives
- prepositions
- possessive pronouns
- verb to-be (is/are)
- active voice
- passive voice
- future tense
- past tense
- present-indicative
- adjectival construction
- indirect object

A sign test (Wilcoxin) for differences between related samples was used in analyzing the data. Table One shows the pre-post scores for 8 pre-school children tested at the beginning and again at the end of the programme.

TABLE I

Pre-Post Measures for Differences in Language Patterns of a Group of Pre-School Indian Children.

Subject	Pre	Post	Difference	$\Sigma +$	$\Sigma -$	Wilcoxin Test
1	10	11	+ 1			
2	7	11	+ 4	24	0	0*
3	3	8	+ 5			
4	6	11	+ 5			
5	7	9	+ 2			
6	4	8	+ 4			
7	5	7	+ 2			
8	7	8	+ 1			

* Significant at $\alpha = .01$

It should be noted that although improvement in language patterns as measured by this test achieved a significance level of .01 no control was exercised over the possibility that there may have been an improvement in the pupil-aide communication variable over the four-week period. Nevertheless, the magnitude and consistency of improvement for the group, even though N is relatively small,

would appear to be indicative of a positive effect as a result of treatment and the area, therefore, clearly in need f further controlled research.

Table Two summarizes the per cent-gain scores for each item for 15 pre-school children given the pre-test and 8 given the post-test. The N's are different in this case because seven of the children who took the pre-test were not available for the post-test.

TABLE II

Per cent-Gains Made, by Items, of Pre-School Group on Language-Patterns Test

Items	% Correct Pre-Measure (N = 15)	% Correct Post-Measure (N = 8)	% Change
Negatives	87	100	+ 13
Prepositions	53	100	+ 47
Possessive Pronouns	27	75	+ 48
Is/Are	53	75	+ 22
Active	53	88	+ 35
Passive	34	75	+ 41
Future	13	100	+ 87
Past	47	63	+ 16
Present Indicative	60	75	+ 15
Adjectives	47	75	+ 28
Indirect Object	20	20	0

In planning the objectives for the programme on the basis of the pre-test in language patterns, the teacher designed activities which would specifically guide the children in desired verbal patterns. This was seen to be consistent with the main objective for the programme, that of encouraging specific kinds of language usage rather than simply a high level of undifferentiated verbalization. Because of the shortness of the programme, however, priorities were established. No learning activities were specifically planned for the indirect object construction and it is noted from the table that no gain occurred in this area.

On the basis of these data, it would seem that improvement in children's verbal patterns can be methodically, even dramatically, brought about in a short period of time by specific teaching. On the other hand, although some gain was noted in most language patterns, it was least evident when a "non-specific" methodology was emphasized. When no specific objective for language improvement was formulated, growth did not occur.

Table Three shows a comparison of the pre-test scores on the language-patterns' test between the pre-school group and the older children in the orientation group.

TABLE III

Comparison of Per cent-Right Scores Between Pre-School and Orientation Groups on the Basis of Pre-Test of Language Patterns

Items	% Correct Pre-School (N = 15)	% Correct Orientation (N = 16)
Negatives	87	100
Prepositions	53	88
Possessive Pronouns	27	44
Is/Are	53	75
Active	53	88
Passive	34	75
Future	13	46
Past	47	56
Present Indicative	60	97
Adjectives	47	97
Indirect Object	20	31

It is interesting to note that the same three items (indirect object, future tense, and possessive pronoun) were the poorest for both groups. At the same time, negatives and the present indicative construction were best for both groups. These data suggest that for these children the language patterns remain relatively consistent over age.

Although some improvement appears to occur with time it is evident that improvement is less than that which occurs as a result of specific, directed teaching (Table II).

Summary

The data presented in this study suggest, as Deutsch hypothesizes, that language deficiencies tend to remain in the verbal repertoire of the child. Perhaps, more importantly, the data support the hypothesis that this phenomena can be corrected. The study reported here demonstrates that within the language areas assessed, a dramatic improvement in disadvantaged children's verbal patterns can be realized in a short period of time by actively involving the children in

specific and well-planned language experiences. At the same time, however, unless such language deficiencies are assessed and corrected, they are likely to continue in the verbal repertoire of the child. Deficiencies cannot be counted on to improve simply as a function of time and undifferentiated school experience.

References

Bereiter, C., and Engelmann, S., Teaching Disadvantaged Children in the Pre-School, New Jersey: Prentice-Hall, 1966.

Bloom, B. S., Engelhart, M.D., Furst, E.J., Hill, W. H., and Krathwohl, D. R., Taxonomy of Educational Objectives, Handbook I. Cognitive Domain; New York: David McKay Company, Inc., 1956.

Brown, R., Bellugi-Klima, U., and Fraser, C., Imitation-Comprehension-Production Test (experimental edition).

Deutsch, Martin, "The Role of Social Class in Language Development and Cognition", American Journal of Orthopsychiatry, XXXV, January 1965, pp. 78 - 83.

Ellis, Richard R., " Pre-kindergarten education for the disadvantaged Child". Disadvantaged Child Volume I : Seattle: Straub and Hellmuth Publishers, 1967.

Krathwohl, D. R., Bloom, B.S., and Masia, B.B., Taxonomy of Educational Objectives, Handbook II: Affective Domain: New York: David McKay Company, 1964.

Living and Learning The Report of the Provincial Committee on Aims and Objectives of Education in the Schools of Ontario. Toronto: The Newton Publishing Company, 1968. pp. 111 - 112.

Simpson, E. J., " The Classification of Educational Objectives, Psychomotor Domain", Illinois Teacher of Home Economics, Vol. X, No. 4, Winter, 1966-67.